

MISCELLANEOUS.

Ceratodus Forsteri and *C. miolepis*. By Dr. A. B. MEYER.

DR. GÜNTHER separates, in his valuable memoir on *Ceratodus* (Phil. Trans. 1871, part ii. p. 516), *Ceratodus Forsteri*, Krefft, and *C. miolepis*, Gthr., as two species, chiefly because the former has 18 series of scales, 5 above and 11 below the lateral lines, the latter 21, 6 above and 13 below. The Royal Natural-History Museum of Dresden possesses a specimen of *Ceratodus* from Gayndah, Burnett River, Wide-Bay district, Queensland (procured through the Museum Godeffroy of Hamburg), which has 19 series of scales, 5 above and 12 below the lateral lines. It stands in this respect between the supposed two species *Ceratodus Forsteri*, Krefft, and *C. miolepis*, Gthr.; and I therefore presume that this character is in such a way variable that a specific difference cannot be founded on it, and that *C. miolepis*, Gthr., must be united with *C. Forsteri*, Krefft. The specimen in the Dresden Museum is about 93 centims. in length.

On an Apparatus of Dissemination of the Gregarinæ and the Stylo-rhynchi; and on a Remarkable Phase of Sporulation in the latter Genus. By M. A. SCHNEIDER.

In the course of a revision of the group of the *Gregarinæ*, which I undertook by the advice and under the auspices of M. de Lacaze-Duthiers, besides numerous facts of detail rectifying or completing the ideas already acquired, I have met with some entirely new peculiarities, of which I will give a brief *résumé*.

These observations are taken from the first part of a memoir on the group of the *Gregarinæ*, in which I give the history and description of the species which inhabit the Invertebrata of the environs of Paris and the marine Invertebrata of the beach of Roscoff.

It is well known that the Gregarinida, on attaining the termination of their individual growth, encyst themselves, and that at the expense of their contents there are formed a considerable number of reproductive bodies, designated under the names of "pseudonavicellæ" and "psorospermeæ," which I propose to call simply "spores," by an application of general nomenclature, wishing to express by this term that the bodies in question do not require the concurrence of a male element in order to commence their evolution.

From the existing data, the mature cyst opens by the rupture of the integument and liberates the spores. A very remarkable exception to the general law is presented by the two genera *Gregarina* and *Stylorhynchus*. But the mode of formation of this apparatus had escaped me; and its ascertainment was nevertheless exceedingly important, both for the legitimation of the discovery and for the sound interpretation of the organic arrangements which had been proved. I have since been able to trace carefully the formation of this apparatus of dissemination; and the following is the way in which it is accomplished:—The cyst early shows, in its clear marginal zone, the appearance of a variable number of tubes, each directed in accordance with a radius of the cyst. At first without